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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/689,490 | 10/20/2003 | David E. Fly | FLYPIN | 7917 |
| 7590 09/28/2005 | | | EXAMINER | |
| ROBERT J. HARTER 4233 CLIFFSIDE DRIVE LA CROSSE, WI 54601 | | | MITCHELL, KATHERINE W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3677 | |

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,490

Applicant(s)

FLY, DAVID E.

Examiner

Katherine W. Mitchell

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le USP 4789287 in view of Dickerson et al USP 4232880.

Re claims 1,10,: Le teaches a fastener comprising:

- a shaft longitudinal centerline (col 3 lines 15-23, Figs 1-4)
- a cam head 7 at one shaft end with an offset centerline with respect to (wrt) the fastener (offset by distance "e" in Figs 1 and 3)
- a clamp head at opposite shaft end (18, note col 2 lines 30-34 also)
- a radially expandable sleeve, 4 (Figs 2,4,6,8, col 3 lines 23-64) defines an opening through which the shaft extends, wherein the shaft is radially movable within the opening between a release and clamp position, and wherein the outer diameter of the sleeve increases in response to the shaft moving radially from release to clamp positions (col 3 lines 41-col 4 line 7, esp. col 3 lines 65-68)

However, Le does not teach an oblong opening in the sleeve wherein the sleeve's longitudinal centerline is radially offset wrt the shaft's longitudinal centerline. Dickerson teaches a sleeve 44 with an oblong hole (Figs 2, 3, col 4 lines 15-38). Therefore, it

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would have been obvious to one of ordinary skill in the art, having the teachings of Le and Dickerson before him at the time the invention was made, to modify Le as taught by Dickerson to include an oblong opening in the sleeve wherein the sleeve's longitudinal centerline is radially offset wrt the shaft's longitudinal centerline of Dickerson, in order to obtain maximum radial sleeve expansion for rotational shaft movement, thus enhancing the grip of the fastener on the panel apertures. One would have been motivated to make such a combination because rigid securement would have been obtained, as taught/suggested by Dickerson in col 3 lines 4-9 and 26-36.

Further Re claims 10 and 22: the oblong opening of Dickerson has a shape that lies along a plane perpendicular to the sleeve's longitudinal centerline. An eccentric shape would have at least one end narrower than some other end, as ends have not been defined.

Further Re claim 16: As best understood by examiner, the sleeve of Le would also comprise an outer diameter defining an infinite plurality of parallel lines, including a plurality of lines segments between the clamping and camming surfaces, including a shortest line segment that would have a length that changes when rotating the sleeve wrt the cam head and clamp head, and the fastener is inevitably capable of clamping in the axial direction upon rotating the cam and clamp heads wrt to sleeve, per Le col 5 line 20 – col 6 line 4.

Re claim 2: The sleeve of Le in view of Dickerson is rotatable to vary the radial offset between the sleeve's longitudinal centerline wrt the cam's longitudinal centerline, as Dickerson col 3 lines 26-36.

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Re claims 3 and 9: Le teaches that the cam head and clamp head can be spaced apart at a fixed distance in col 2 lines 30-34.

Re claim 4: full length slit shown in Le Fig 2 and 8, and col 3 lines 37-40.

Re claim 5 and 19: slit is at narrowest side of sleeve, thus the slit side is the clamp position, per Le col 3 lines 37-40 and col 3 lines 65- col 4 line 7.

Re claims 6 and 7: Examiner takes Official Notice that handles are well known in the art as useful in transmitting rotational movement to shafts, and could be attached at either end, depending on use and clearances.

Re claim 8: Le teaches a cam with an inclined surface at an angle to the cam's longitudinal centerline, as examiner notes that 90 degrees is an angle. Dickerson also shows an incline other than 90 degrees in the tapered shaft shown in Figs 4 and 5, and it is well known to provide an inclined surface to assist in inserting and centering objects within rounded openings..

Re claim 15: Examiner takes Official Notice that alignment marks to indicate that two parts are aligned is well known in the art, as evidenced by Duran USP 5073075, col 4 lines 16-20 and Fig 11.

Claim Objections

3. Claim 5 is objected to because of the following informalities: Applicant is claiming an apparatus, but has a method of use step "moves toward" in claim 5. A more correct wording is the wording of cancelled claim 19, "is movable toward". Appropriate correction is required.

Double Patenting

4. Applicant's explanation is accepted and examiner agrees the claims are not duplicates.

Response to Arguments

5. Applicant's arguments filed 7/21/2005 have been fully considered but they are not persuasive. Applicant argues that Dickerson does not teach an oblong hole, only an eccentric hole. Examiner notes that even if it is assumed that the sleeve hole is initially round, if the hole is deformed when the slot allows expansion when in use, then it necessarily becomes oblong:

~~THE SLEEVE EXTENDING FROM THE SPINDLE AND JOINT~~
The sleeve has a slot axially extending therethrough which accommodates manufacturing tolerances and facilitates expansion of the sleeve when the ball stud is pressed within the said tapered aperture to expand the outer surface of said sleeve and frictionally lock the outer surface against the surface of the cylindrical aperture through the spindle arm to which the sleeve is mounted. In this fashion, the stud extending through the sleeve is rigidly secured to said spindle.

Further, "oblong" could refer to the shape in the axial direction, rather than in the radial direction - i.e., the opening could have a circular cross section in the radial direction, but clearly the cross section in the axial direction is oblong.

6. Examiner is not, however, completely unreasonable, and has appreciated applicant's clear intention to define a patentable invention. Thus, examiner suggests that an amendment to clarify that the opening, in a radial cross-sectional cut, has an oblong shape when the sleeve is in its unexpanded or uncompressed state, would read over the prior art of record. Further, examiner **will enter and consider** such an amendment AFTER FINAL providing no other limitations are changed. Applicant should

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also address the minor objection to claim 5 as re-noted above. Examiner suggests that if applicant makes such an after final amendment, applicant should state that examiner has made this offer so that examiner will not inadvertently issue an advisory action as raising new issues, since examiner has already searched the proposed claim amendment.

Examiner believes that when the sleeve expands, the radial offset will necessarily vary. See the section copied above.

The sleeve could rotate while it is fixed - it and its housing/what it is connected to can rotate together. If there is a full length sleeve slot, then the sleeve CAN expand, whether or not it does. See the section copied above. The motivation to have an inclined surface is so well known that examiner did not repeat it for Dickerson - tapered surfaces are well known to facilitate insertion and centering of bodies within holes.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

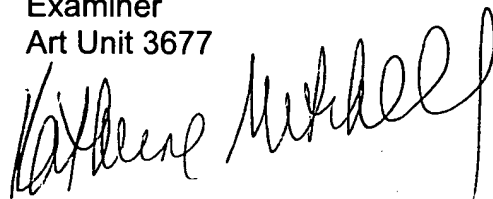
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kwm
9/23/2005

Katherine W Mitchell
Examiner
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A handwritten signature in black ink, appearing to read 'Katherine W. Mitchell', written over the printed name and title.